CEPS Dean Commits to Engineering Education Initiative in Letter to President Obama

Tuesday, March 24, 2015

The UNH College of Engineering and Physical Sciences is among more than 120 U.S. engineering schools leading a transformative movement in engineering education announced at the White House during its 2015 Science Fair this week.

In the letter signed by CEPS Dean Samuel Mukasa President Barack Obama, UNH and peer institutions committed to establish special educational programs designed to prepare undergraduates to solve "Grand Challenges"—complex yet achievable goals to improve national and international health, security, sustainability and quality of life in the 21st century. Together, the schools plan to graduate more than 20,000 formally recognized "Grand Challenge Engineers" over the next decade.

"We are delighted to be part of the initiative to address the 14 engineering grand challenges facing humanity," said Mukasa. "UNH has world-class expertise among the faculty to take on several of these challenges"

Want to Know More?

Read the letter, and learn more about the initiative.

Each of the 122 signing schools has pledged to graduate a minimum of 20 students per year who have been specially prepared to lead the way in solving such large-scale problems, with the goal of training more than 20,000 formally recognized "Grand Challenge Engineers" over the next decade.

Mukasa noted that the university is already tackling many of the 14 challenges identified by the US National Academy of Engineering in 2008. These efforts include designing

new materials to make solar energy conversion more efficient and affordable, providing water resources management skills for sustainable agriculture, building sustainable urban and rural infrastructure, innovating delivery of new drug therapies, and helping to secure cyberspace.

"We have a number of colleagues who have invented analytical equipment that is going to help humanity and is vital to homeland security," Mukasa said. "The equipment can monitor chemical changes in the atmosphere caused by industrial and other anthropogenic activities, and detectors can discover gamma-ray emitting radioactive materials hidden in ocean-going shipping containers for sinister purposes."

Grand Challenge engineers will be trained through special programs at each institution that integrate five educational elements: (1) a hands-on research or design project connected to the Grand Challenges; (2) real-world, interdisciplinary experiential learning with clients and mentors; (3) entrepreneurship and innovation experience; (4) global and cross-cultural perspectives; and (5) service-learning.

- WRITTEN BY:
  Michelle Morrissey '97 | UNH Donor Communications | michelle.morrissey@unh.edu | 603-862-0527

INNOVATION

Find us on LinkIn

UNH Today RSS feeds